ABSTRACT OF THE DISCLOSURE

LDPC (Low Density Parity Check) coded modulation symbol decoding using non-Gray code maps for improved performance. Symbol decoding is supported by appropriately modifying an LDPC tripartite graph to eliminate the bit nodes thereby

5   generating an LDPC bipartite graph (such that symbol nodes are appropriately mapped directly to check nodes thereby obviating the bit nodes). The edges that communicatively couple the symbol nodes to the check nodes are labeled appropriately to support symbol decoding of the LDPC coded modulation signal. In addition, the LDPC coded modulation symbol decoding can be employed to decode a signal that has been encoded

10   using LDPC-BICM (Low Density Parity Check-Bit Interleaved Coded Modulation) encoding with non-Gray code mapping. By using the non-Gray code mapping, a performance improvement over such a system using only Gray code mapping may be achieved.